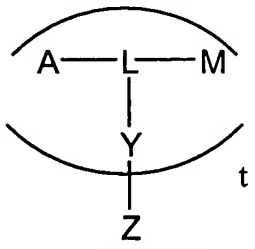
Specification Amendments

Please amend the paragraphs beginning on page 2, line 30, to page 5, line 16, as follows:

Another embodiment of the present invention is a compound of the formula:



Formula I

wherein:

A is an amphetamine moiety,

M is a methamphetamine moiety,

L is a linking group,

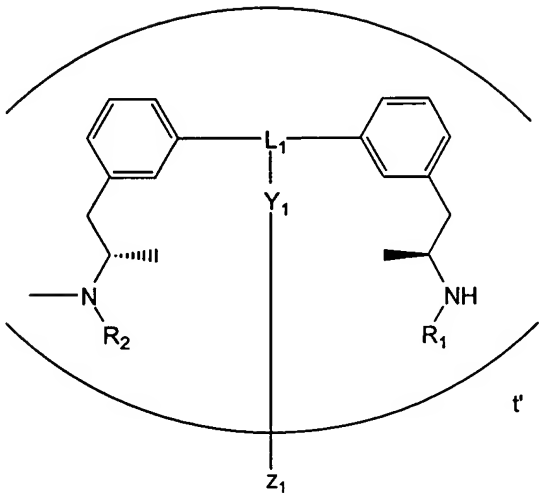
Y is a bond, a functional group or a linking group and is bonded to L at a point equidistant between A and M, and

Z is a poly(amino acid), a non-poly(amino acid) label moiety or a functional group;

t is 1 when Z is a functional group or a non-poly(amino acid) label or, when Z is a poly(amino acid), t is an integer between 1 and the molecular weight of a poly(amino acid) divided by about 500;

and salts thereof.

Another embodiment of the present invention is a compound of the formula:



Formula II

wherein:

R_1 is hydrogen, lower alkyl, or a protecting group,

R_2 is hydrogen, lower alkyl, or a protecting group,

L_1 is a linking group,

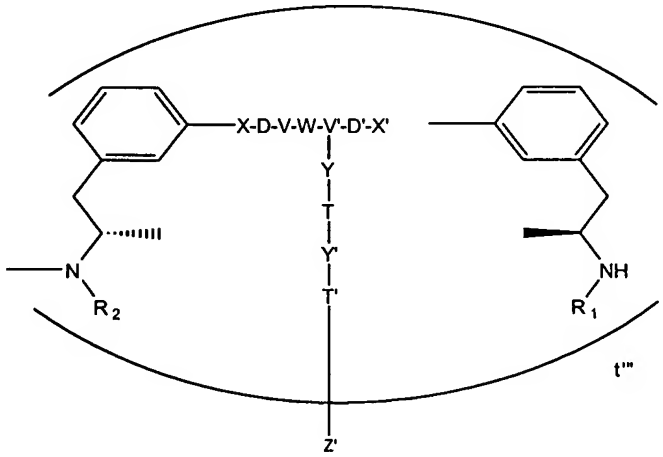
Y_1 is a bond, a functional group or a linking group and is bonded to L_1 at a point equidistant between the point of attachment to each of the phenyl groups,

Z_1 is a poly(amino acid), a non-poly(amino acid) label or a functional group; and

t' is 1 when Z_1 is a functional group or a non-poly(amino acid) label or, when Z_1 is a poly(amino acid), t' is an integer between 1 and the molecular weight of a poly(amino acid) divided by about 500;

and salts thereof.

Another embodiment of the present invention is a compound of the formula:



Formula III

wherein:

R_1 and R_2 are independently H, lower alkyl or a protecting group,

X and X' are independently O, S, or a bond;

D and D' are independently alkylene or substituted alkylene;

V and V' are independently O, S, or a bond;

W is CH;

Y is NR_3 wherein R_3 is H or lower alkyl, O, S, or a bond;

T is alkylene, -(C=O)alkylene, ethereal alkylene, acetamide or a bond;

Y' is NR_3 wherein R_3 is H or lower alkyl, O, S, or a bond;

T' is alkylene, -(C=O)alkylene, ethereal alkylene, acetamide or a bond; and

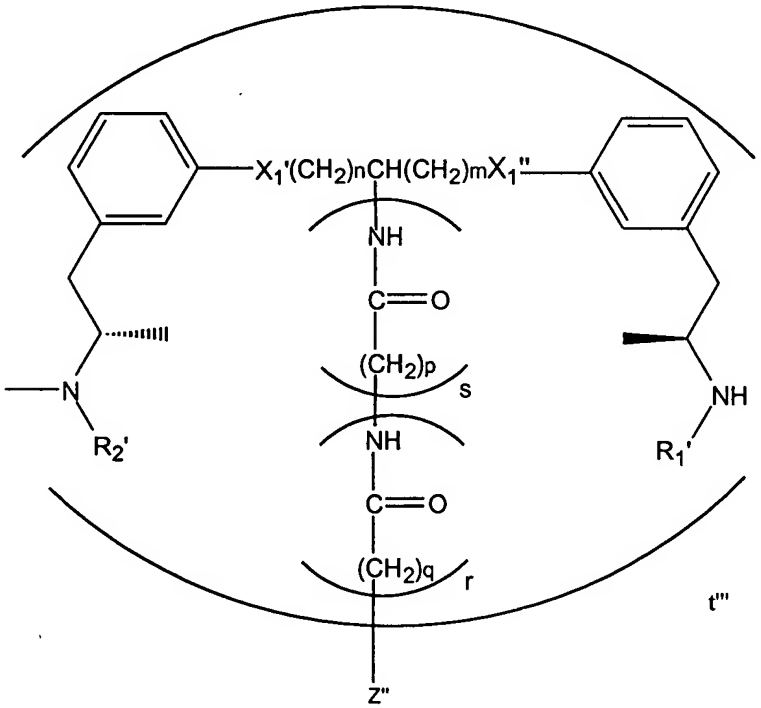
Z' is a poly(amino acid), a non-poly(amino acid) label moiety, H, Br, Cl, F, I, NH_2, acetamide, haloacetamide;

t'' is 1 when Z' is a functional group or a non-poly(amino acid) label or, when Z' is a poly(amino acid), t'' is an integer between 1 and the molecular weight of a poly(amino acid) divided by about 500;

with the proviso that X and X' have approximately the same length, D and D' have approximately the same length, and V and V' have approximately the same length;

and salts thereof.

Another embodiment of the present invention is a compound of the formula:



Formula IV

wherein:

R_1' and R_2' are independently H, lower alkyl or a protecting group,

X_1' and X_1'' are S or O;

Z" is an enzyme; H, Br, Cl, F, I, NH_2, acetamide, haloacetamide;

t''' is 1 when Z'' is other than an enzyme and, when Z" ~~t'''~~ is an enzyme, t''' is an integer between 1 and the molecular weight of the enzyme divided by about 500; and

n, m, p, q, r and s are each independently 0 ~~1~~ to 5;

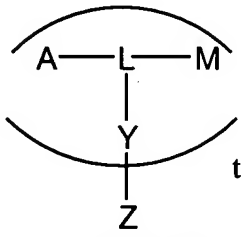
and salts thereof.

Please amend the paragraph on page 9, lines 4-24, as follows:

In the present invention, a three-component reagent system that includes a single label conjugate and two antibodies is employed. The present invention utilizes a bivalent hapten reagent that incorporates both amphetamine and methamphetamine moieties in a single chemical entity. This particular synthetic entity can then be conjugated to, for example, a label to produce a label conjugate comprising the amphetamine and methamphetamine moieties. The bivalent haptens comprise a linking group between the two moieties so that both the amphetamine moiety and methamphetamine moiety are extended substantially equally in space and, in some embodiments, are symmetrically disposed, allowing each of the hapten moieties equal opportunity to interact with a corresponding antibody. The linking group typically has a functional group in the middle of its scaffold where the functional group is available for further elaboration of the molecule such as by attaching a linking group for linking to a label. The functional group permits the incorporation of a tether or second linking group, which has a functionality ready for attachment to an ~~and~~ attachable moiety, for example, a label such as, e.g., an enzyme. The reagent system further includes two antibodies, namely, an antibody for amphetamine and an antibody for methamphetamine. The reagent system may be used in methods for detecting the aforementioned drugs in samples suspected of containing the drugs. In the assays the amphetamines, i.e., amphetamine and methamphetamine, to be measured are the analytes. In general, an analyte is a ligand and is a member of a specific binding pair, which may be, for example, the ligand or analyte and a corresponding antibody for the ligand or analyte.

Please amend the paragraphs beginning on page 15, line 18, to page 17, line 4, as follows:

As mentioned above, one aspect of the present invention concerns compounds of the formula:



Formula I

wherein:

A is an amphetamine moiety such as, for example, an amphetamine analog or derivative thereof,

M is a methamphetamine moiety such as, for example, a methamphetamine analog or derivative thereof,

L is a linking group,

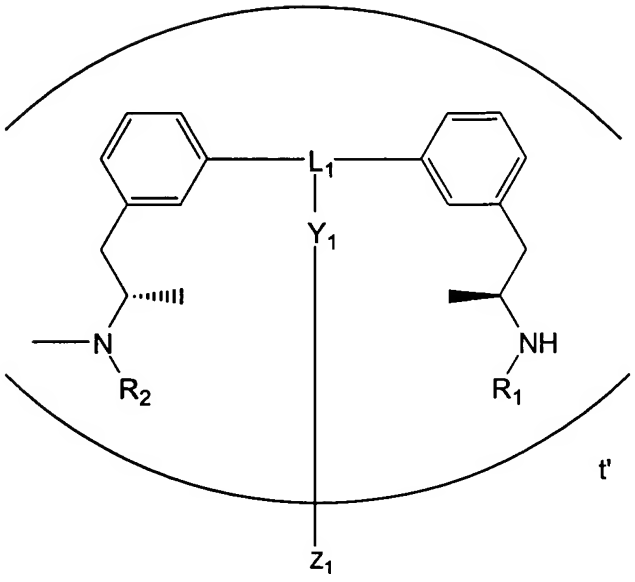
Y is a bond, a functional group or a linking group and is bonded to L at a point equidistant between A and M, and

Z is a poly(amino acid) moiety such as, for example, an enzyme, a non-poly(amino acid) label moiety or a functional group;

t is 1 when Z is a functional group or a non-poly(amino acid) label moiety or, when Z is a poly(amino acid), t is an integer between 1 and the molecular weight of a poly(amino acid) moiety divided by about 500.

Salts of the above compounds are also included within the above formula.

Included within the above compounds are compounds of the formula:



Formula II

wherein:

R_1 is hydrogen, lower alkyl, protecting group or the like;

R_2 is hydrogen, lower alkyl, protecting group or the like;

L_1 is a linking group,

Y_1 is a bond, a functional group or a linking group and is bonded to L_1 at a point equidistant between the point of attachment to each of the phenyl groups,

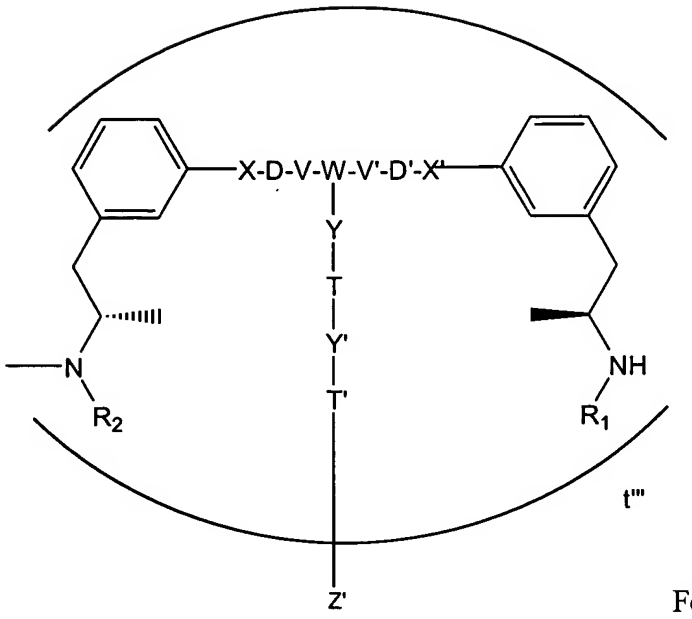
Z_1 is a poly(amino acid) moiety such as, for example, an enzyme, a non-poly(amino acid) label moiety or a functional group; and

t' is 1 when Z_1 is a functional group or a non-poly(amino acid) label moiety or, when Z_1 is a poly(amino acid), t' is an integer between 1 and the molecular weight of a poly(amino acid) moiety divided by about 500.

Also included within the above formula are salts of the above compounds.

Please amend the paragraph beginning on page 17, line 9, to page 18, line 9, as follows:

Another embodiment of the present invention is directed to compounds of the formula:



Formula III

wherein:

R_1 and R_2 are independently H, lower alkyl, or a protecting group or the like,

X and X' are independently O, S, or the like, or a bond;

D and D' are independently alkylene or substituted alkylene or the like;

V and V' are independently O, S, or the like, or a bond;

W is CH or the like;

Y is NR_3 wherein R_3 is H or lower alkyl, O, S, a bond, or the like;

T is alkylene, -(C=O)alkylene, ethereal alkylene, acetamide or a bond;

Y' is NR_3 wherein R_3 is H or lower alkyl, O, S, or a bond;

T' is alkylene, -(C=O)alkylene, ethereal alkylene, acetamide or a bond; and

Z' is a poly(amino acid), a non-poly(amino acid) label moiety, H, halogen (Br, Cl, F, I), NH_2, acetamide, haloacetamide;

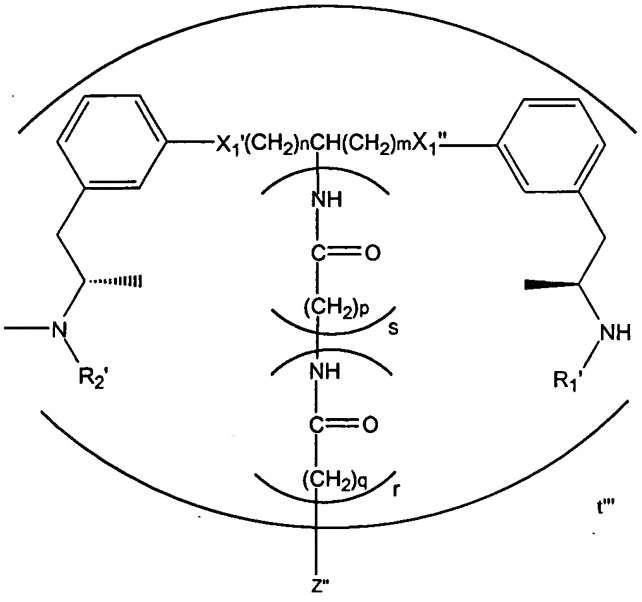
t'' is 1 when Z' is a functional group or a non-poly(amino acid) label moiety or, when Z' is a poly(amino acid), t'' is an integer between 1 and the molecular weight of a poly(amino acid) moiety divided by about 500;

with the proviso that X and X' have approximately the same length, D and D' have approximately the same length, and V and V' have approximately the same length;

Also included are salts of the above compounds.

Please amend the paragraph on page 18, line 30, to page 19, line 19, as follows:

Another embodiment of the present invention is a compound of the formula:



Formula IV

wherein:

R_1' and R_2' are independently H, lower alkyl, a protecting group, or the like,

X_1' and X_1'' are S or O or the like;

Z" is an enzyme; H, Br, Cl, Fl, I, NH_2, acetamide, haloacetamide, or the like;

t''' is 1 when Z'' is other than an enzyme and, when Z" ~~t'''~~ is an enzyme, t''' is an integer between 1 and the molecular weight of the enzyme divided by about 500; and

n, m, p, q~~, r and s~~ are each independently 1 to 5 and r and s are each independently 0 to 5~~;~~.

The above formula also includes salts thereof.